## CONTENTS

**Volume 110 Number 1 2006**

1 ***Mycological Research* News**
Elsevier: the new publisher for British Mycological Society Journals; Editorial; In this issue; The first defensin from a fungus; *Pisolithus* and inter-plant nitrogen transfer; Vanishing mitochondria

**Review**

4 The Spitzenkörper: A molecular perspective
A. VIRAG & S. D. HARRIS

**Papers**

14 DNA recovered and sequenced from an almost 7000 y-old Neolithic polypore, *Daedaleopsis tricolor*
A. BERNICCHIA, M. A. FUGAZZOLA, V. GEMELLI, B. MANTOVANI, A. LUCCHETTI, M. CESARI & E. SPERONI

18 Consecutive monitoring of lifelong production of conidia by individual conidiophores of *Blumeria graminis* f. sp. *hordei* on barley leaves by digital microscopic techniques with electrostatic micromanipulation
N. MORIURA, Y. MATSUDA, W. OICHI, S. NAKASHIMA, T. HIRAI, T. SAMESHIMA, T. NONOMURA, K. KAKUTANI, S.-I. KUSAKARI, K. HIGASHI & H. TOYODA

28 Isolation, cloning and expression analysis of *EcPMA1*, a putative plasma membrane $H^+$-ATPase transporter gene from the biotrophic pathogenic fungus *Erysiphe cichoracearum*
V. FOTOPOULOS, R. HOLMES, J. L. HALL & L. E. WILLIAMS

38 *Armillaria luteobubalina* mycelium develops air pores that conduct oxygen to rhizomorph clusters
M. PAREEK, W. G. ALLAWAY & A. E. ASHFORD

51 Simple sequence repeat (SSR) markers in the ectomycorrhizal fungus *Laccaria bicolor* for environmental monitoring of introduced strains and molecular ecology applications
J.-L. JANY, J. BOUSQUET, A. GAGNÉ & D. P. KHASA

60 A quick and precise technique for identifying ectomycorrhizas by PCR
M. IOTTI & A. ZAMBONELLI

66 The three $\beta$-1,3-glucanases from *Acremonium blochii* strain C59 appear to be encoded by separate genes
K. L. MARTIN, B. M. McDOUGALL, S. E. UNKLES & R. J. SEVIOUR

75 Phylogenetic relationships of *Albugo* species (white blister rusts) based on LSU rDNA sequence and oospore data
H. VOGLMAYR & A. RIETHMÜLLER

86 Diversity and evolution of 5S rRNA gene family organization in *Pythium*
J. E. J. BEDARD, A. M. SCHURKO, A. W. A. M. DE COCK & G. R. KLASSEN

96 Relationship between temperature optima and secreted protease activities of three *Pythium* species and pathogenicity toward plant and animal hosts
D. J. DAVIS, K. LANTER, S. MAKSELAN, C. BONATI, P. ASBROCK, J. P. RAVISHANKAR & N. P. MONEY

104 *Chaetosphaeria tortuosa*, the newly discovered teleomorph of *Menispora tortuosa*, with a key to known *Menispora* species
M. RÉBLOVÁ, K. A. SEIFERT & G. P. WHITE

110 *Mycological Research*: instructions and guidelines for authors
D. L. HAWKSWORTH

119 Book reviews

**Volume 110 Number 2 2006**

123 ***Mycological Research* News**
In this issue; New light shed on molecular evolution in *Phytophthora infestans;* Moriniafungin, a novel broad spectrum antifungal sordarin; Rhizoxin is not produced by *Rhizopus* but an endosymbiotic bacterium

**Papers**

125 Evolution and phylogenetic relationships within *Porinaceae* (*Ostropomycetidae*), focusing on foliicolous species
E. BALOCH & M. GRUBE

137 Phylogenetic investigations of *Sordariaceae* based on multiple gene sequences and morphology
L. CAI, R. JEEWON & K. D. HYDE

151 Molecular taxonomy and ecology of *Pseudallescheria*, *Petriella* and *Scedosporium prolificans* (*Microascaceae*) containing opportunistic agents on humans
J. RAINER & G. S. DE HOOG

161 Changes in production of lignin degrading enzymes during interactions between mycelia of the tropical decomposer basidiomycetes *Marasmiellus troyanus* and *Marasmius pallescens*
A. P. FERREIRA GREGORIO, I. R. DA SILVA, M. R. SEDARATI & J. N. HEDGER

169 Influence of small scale conditions on the diversity of wood decay fungi in a temperate, mixed deciduous forest canopy
M. UNTERSEHER & O. TAL

179 Histopathological studies of sclerotia of phytopathogenic fungi parasitized by a GFP transformed *Trichoderma virens* antagonistic strain
S. SARROCCO, L. MIKKELSEN, M. VERGARA, D. F. JENSEN, M. LÜBECK & G. VANNACCI

188 Isolation and characterisation of *Beauveria bassiana* isolates from phylloplanes of hedgerow vegetation
N. V. MEYLING & J. EILENBERG

196 The effects of heat treatments on ectomycorrhizal resistant propagules and their ability to colonize bioassay seedlings
A. IZZO, M. CANRIGHT & T. D. BRUNS

203 A molecular protocol using quenched FRET probes for the quarantine surveillance of *Tilletia indica*, the causal agent of Karnal bunt of wheat
M.-K. TAN & G. M. MURRAY

211 Natural variation of ascospore and conidial germination by *Fusarium verticillioides* and other *Fusarium* species
A. E. GLENN

220 Three new asexual arthroconidial yeasts, *Geotrichum carabidarum* sp. nov., *Geotrichum histeridarum* sp. nov., and *Geotrichum cucujoidarum* sp. nov., isolated from the gut of insects
S.-O. SUH & M. BLACKWELL

229 First record of *Colletogloeopsis zuluense* comb. nov., causing a stem canker of *Eucalyptus* in China
M.-N. CORTINAS, T. BURGESS, B. DELL, D. XU, P. W. CROUS, B. D. WINGFIELD & M. J. WINGFIELD

237 *Ceratocystis omanensis*, a new species from diseased mango trees in Oman
A. M. AL-SUBHI, A. O. AL-ADAWI, M. VAN WYK, M. L. DEADMAN & M. J. WINGFIELD

246 Book reviews

**Volume 110 Number 3 2006**

249 ***Mycological Research* News**
In this issue; *Opisthokonta*: a new kingdom for animals and fungi?; *Phaeoacremonium's* infecting humans and woody plants; Erratum

**Papers**

251 A comprehensive comparative analysis of the occurrence of developmental sequences in fungal, plant and animal genomes
D. MOORE & A. MEŠKAUSKAS

257 The halotolerant fungus *Glomerobolus gelineus* is a member of the *Ostropales*
C. L. SCHOCH, J. KOHLMEYER, B. VOLKMANN-KOHLMEYER, C. K. M. TSUI & J. W. SPATAFORA

264 *Metulocladosporiella* gen. nov. for the causal organism of Cladosporium speckle disease of banana
P. W. CROUS, H.-J. SCHROERS, J. Z. GROENEWALD, U. BRAUN & K. SCHUBERT

276 Detection of species within the *Xerocomus subtomentosus* complex in Europe using rDNA–ITS sequences
A. F. S. TAYLOR, A. E. HILLS, G. SIMONINI, E. E. BOTH & U. EBERHARDT

288 Genetic diversity of the Chestnut blight fungus *Cryphonectria parasitica* in four French populations assessed by microsatellite markers
F. BREUILLIN, C. DUTECH & C. ROBIN

297 The application of high-throughput AFLP's in assessing genetic diversity in *Fusarium oxysporum* f. sp. *cubense*
S. GROENEWALD, N. VAN DEN BERG, W. F. O. MARASAS & A. VILJOEN

306 Clonality in South African isolates and evidence for a European origin of the root pathogen *Thielaviopsis basicola*
M. M. GELDENHUIS, J. ROUX, A. J. CILLIERS, B. D. WINGFIELD & M. J. WINGFIELD

312 Phenotypic diversity amongst strains of *Pleurotus sajor-caju*: implications for cultivation in arid environments
C. KASHANGURA, J. E. HALLSWORTH & A. Y. MSWAKA

318 Fungal endophytes in seeds and needles of *Pinus monticola*
R. J. GANLEY & G. NEWCOMBE

328 Chitinolytic activities of ericoid mycorrhizal and other root-associated fungi from *Epacris pulchella* (*Ericaceae*)
D. S. BOUGOURE & J. W. G. CAIRNEY

335 Grazing by *Folsomia candida* (Collembola) differentially affects mycelial morphology of the cord-forming basidiomycetes *Hypholoma fasciculare*, *Phanerochaete velutina* and *Resinicium bicolor*
G. M. TORDOFF, L. BODDY & T. H. JONES

346 *Metschnikowia noctiluminum* sp. nov., *Metschnikowia corniflorae* sp. nov., and *Candida chrysomelidarum* sp. nov., isolated from green lacewings and beetles
N. H. NGUYEN, S.-O. SUH, C. K. ERBIL & M. BLACKWELL

**Volume 110 Number 4 2006**

357 ***Mycological Research* News**
In this issue; Interspecies gene transfer in *Ophiostoma novo-ulmi*; Names of *Pneumocystis* species; Cell walls in yeasts and filamentous fungi

**Papers**

359 Molecular Systematics of *Zopfiella* and allied genera: evidence from multi-gene sequence analyses
L. CAI, R. JEEWON & K. D. HYDE

369 A molecular phylogeny of *Hebeloma* species from Europe
H. BOYLE, B. ZIMDARS, C. RENKER & F. BUSCOT

381 *Trichoderma theobromicola* and *T. paucisporum:* two new species isolated from cacao in South America
G. J. SAMUELS, C. SUAREZ, K. SOLIS, K. A. HOLMES, S. E. THOMAS, A. ISMAIEL & H. C. EVANS

393 *Phytophthora captiosa* sp. nov. and *P. fallax* sp. nov. causing crown dieback of Eucalyptus in New Zealand
M. A. DICK, K. DOBBIE, D. E. L. COOKE & C. M. BRASIER

405 Two new *Fusicoccum* species from *Acacia* and *Eucalyptus* in Venezuela, based on morphology and DNA sequence data
S. MOHALI, B. SLIPPERS & M. J. WINGFIELD

414 Characterization of *Armillaria* spp. from peach orchards in the southeastern United States using fatty acid methyl ester profiling
K. D. COX, H. SCHERM & M. B. RILEY

423 Genetic diversity in the blackberry rust pathogen, *Phragmidium violaceum*, in Europe and Australasia as revealed by analysis of SAMPL
D. R. GOMEZ, K. J. EVANS, P. R. HARVEY, J. BAKER, J. BARTON, M. JOURDAN, L. MORIN, S. R. PENNYCOOK & E. S. SCOTT

431 Molecular and physiological diversity among *Verticillium fungicola* var. *fungicola*
M. L. LARGETEAU, J. P. P. BAARS, C. REGNAULT-ROGER & J.-M. SAVOIE

441 Analysis of *Claviceps africana* and *C. sorghi* from India using AFLPs, EF-1$\alpha$ gene intron 4, and $\beta$-tubulin gene intron 3
P. W. TOOLEY, R. BANDYOPADHYAY, M. M. CARRAS & S. PAŽOUTOVÁ

452 Cultural characteristics, morphology, and variation within *Claviceps africana* and *C. sorghi* from India
V. MUTHUSUBRAMANIAN, R. BANDYOPADHYAY, D. RAJARAM REDDY & P. W. TOOLEY

465 *In vitro* pathogenicity assay for the ergot fungus *Claviceps purpurea*
J. SCHEFFER & P. TUDZYNSKI

471 Characterization and genetic distance analysis of isolates of *Peronosclerospora sorghi* using AFLP fingerprinting
R. PERUMAL, T. ISAKEIT, M. MENZ, S. KATILE, E.-G. NO & C. W. MAGILL

479 Effect of the high polycyclic aromatic hydrocarbon, benzo[a]pyrene, on the lipid content of *Fusarium solani*
A. VERDIN, A. LOUNÈS-HADJ SAHRAOUI, F. LARUELLE, A. GRANDMOUGIN-FERJANI & R. DURAND

485 Impact of moisture on *in vitro* germination of *Metarhizium anisopliae* and *Beauveria bassiana* and their activity on *Triatoma infestans*
G. M. J. LAZZARINI, L. F. N. ROCHA & C. LUZ

493 A new species of *Phaeohelotium* from *Nothofagus* forests in Argentina and Chile, with a key to the Southern Hemisphere species
I. J. GAMUNDÍ & M. I. MESSUTI

497 Mycorrhizas
P. BONFANTE

497 Mycologists' Lives
D. L. HAWKSWORTH

**Volume 110 Number 5 2006**

499 ***Mycological Research* News**
In this issue: Austral ectomycorrhizas overlooked; *Mycological Research* 2004 Impact Factor in error; Speciation and gene loss in polyploidy yeasts

**Papers**

501 Phylogenetic relationships among *Zygomycetes* from soil based on ITS1/2 rDNA sequences
H. KWAŚNA, E. WARD & G. L. BATEMAN

511 Molecular data place *Trypetheliaceae* in *Dothideomycetes*
R. DEL PRADO, I. SCHMITT, S. KAUTZ, Z. PALICE, R. LÜCKING & H. T. LUMBSCH

521 Molecular phylogeny of *Acarosporaceae* (*Ascomycota*) with focus on the proposed genus *Polysporinopsis*
A. T. CREWE, O. W. PURVIS & M. WEDIN

527 Phylogenetic relationships of coprophilous *Pleosporales* (*Dothideomycetes, Ascomycota*), and the classification of some bitunicate taxa of unknown position
A. KRUYS, O. E. ERIKSSON & M. WEDIN

537 A taxonomic revision of the insect biocontrol fungus *Aschersonia aleyrodis*, its allies with white stromata and their *Hypocrella* sexual states
M. LIU, P. CHAVERRI & K. T. HODGE

555 *Glomus drummondii* and *G. walkeri*, two new species of arbuscular mycorrhizal fungi (*Glomeromycota*)
J. BŁASZKOWSKI, C. RENKER & F. BUSCOT

567 *Queirozia turbinata (Phyllactinieae, Erysiphaceae)*: a powdery mildew with a dematiaceous anamorph
J. R. LIBERATO, R. W. BARRETO, S. NIINOMI & S. TAKAMATSU

575 *Gymnomyces xerophilus* sp. nov. (sequestrate Russulaceae), an ectomycorrhizal associate of *Quercus* in California
M. E. SMITH, J. M. TRAPPE, D. M. RIZZO & S. L. MILLER

583 Intraspecific variability of *Pythium myriotylum* isolated from cocoyam and other host crops
M. PERNEEL, J. T. TAMBONG, A. ADIOBO, C. FLOREN, F. SABORÍO, A. LÉVESQUE & M. HÖFTE

594 A nine-year genetic survey of the causal agent of Dutch elm disease, *Ophiostoma novo-ulmi* in Winnipeg, Canada
B. TEMPLE, P. A. PINES & W. E. HINTZ

601 Transformation of the ryegrass endophyte *Neotyphodium lolii* can alter its *in planta* mycelial morphology
N. ZHANG, V. SCOTT, T. H. AL-SAMARRAI, Y. Y. TAN, M. J. SPIERING, L. K. MCMILLAN, G. A. LANE, D. B. SCOTT, M. J. CHRISTENSEN & J. SCHMID

612 Cultural studies of *Morchella elata*
R. S. WINDER

**Volume 110 Number 6 2006**

625 ***Mycological Research* News**
In this issue: Crisis in teaching future generations about fungi

**Papers**

628 *Hassiella monospora* gen. et sp. nov., a microfungus from the 400 million year old Rhynie chert
T. N. TAYLOR, M. KRINGS & H. KERP

633 Revision of *Plasmopara* (*Chromista*, *Peronosporales*) parasitic on *Geraniaceae*
H. VOGLMAYR, J. FATEHI & O. CONSTANTINESCU

646 A revision of *Bremia graminicola*
M. THINES, M. GÖKER, O. SPRING & F. OBERWINKLER

657 Evidence for asexual genetic recombination in sunflower downy mildew, *Plasmopara halstedii*
O. SPRING & R. ZIPPER

664 Use of hybridization melting kinetics for detecting *Phytophthora* species using three-dimensional microarrays: demonstration of a novel concept for the differentiation of detection targets
N. ANDERSON, M. SZEMES, P. O'BRIEN, M. DE WEERDT, C. SCHOEN, P. BOENDER & P. BONANTS

672 Morphological and phylogenetic comparisons amongst powdery mildews on *Catalpa* in UK
R. T. A. COOK, B. HENRICOT, A. HENRICI & P. BEALES

686 Emerging antifungal azoles and effects on *Magnaporthe grisea*
D. MARES, C. ROMAGNOLI, E. ANDREOTTI, G. FORLANI, S. GUCCIONE & C. B. VICENTINI

697 Diversity, complexity and transmission of double-stranded RNA elements in *Chalara elegans* (synanam. *Thielaviopsis basicola*)
Y. PARK, X. CHEN & Z. K. PUNJA

705 Genetic population structure of three *Armillaria* species at the landscape scale: a case study from Swiss *Pinus mugo* forests
M. BENDEL, F. KIENAST & D. RIGLING

713 Hypersaline conditions induce changes in cell-wall melanization and colony structure in a halophilic and a xerophilic black yeast species of the genus *Trimmatostroma*
T. KOGEJ, A. A. GORBUSHINA & N. GUNDE-CIMERMAN

725 Effects of water potential on mycelial growth, sclerotial production, and germination of *Rhizoctonia solani* from potato
F. RITCHIE, M. P. MCQUILKEN & R. A. BAIN

734 Diversity and community structure of ectomycorrhizal fungi in a wooded meadow
L. TEDERSOO, T. SUVI, E. LARSSON & U. KÕLJALG

749 Book review

**Volume 110 Number 7 2006**

751 ***Mycological Research* News**
In this issue; *Mycological Research* Impact Factor rises; Resolution of climate change/chytrid paradox in global amphibian decline; Mushroom odours and their roles; Social conflict in yeast populations; *Candida* transcription modules available online; *Mycological Research* biocontrol paper wins award

**Papers**

755 Estimates of biomechanical forces in *Magnaporthe grisea*
A. GORIELY & M. TABOR

760 Oxygen consumption-based evaluation of fungal activity
M. NELL, R. MAMMERLER & S. STEINKELLNER

765 Phylogeny and phenotypic variation in the lichen family *Graphidaceae* (*Ostropomycetidae*, *Ascomycota*)
B. STAIGER, K. KALB & M. GRUBE

773 *Stictis* s. lat. (*Ostropales*, *Ascomycota*) in northern Scandinavia, with a key and notes on morphological variation in relation to lifestyle
M. WEDIN, H. DÖRING & G. GILENSTAM

790 Two new species of nematode-trapping fungi: relationships inferred from morphology, rDNA and protein gene sequence analyses
Y. LI, R. JEEWON, K. D. HYDE, M.-H. MO & K.-Q. ZHANG

801 *Ophiostoma arduennense* sp. nov. (*Ophiostomatales*, *Ascomycota*) from *Fagus sylvatica* in southern Belgium
F.-X. CARLIER, C. DECOCK, K. JACOBS & H. MARAITE

811 Changes in secondary metabolism during stromatal ontogeny of *Hypoxylon fragiforme*
M. STADLER, D. N. QUANG, A. TOMITA, T. HASHIMOTO & Y. ASAKAWA

821 Genetic variability and chromosome-length polymorphisms of the witches' broom pathogen *Crinipellis perniciosa* from various plant hosts in South America
J. RINCONES, G. D. MAZOTTI, G. W. GRIFFITH, A. POMELA, A. FIGUEIRA, G. A. LEAL, M. V. QUEIROZ, J. F. PEREIRA, R. A. AZEVEDO, G. A. G. PEREIRA & L. W. MEINHARDT

833 Novel hosts of the *Eucalyptus* canker pathogen *Chrysoporthe cubensis* and a new *Chrysoporthe* species from Colombia
M. GRYZENHOUT, C. A. RODAS, J. M. PORTALES, P. CLEGG, B. D. WINGFIELD & M. J. WINGFIELD

846 Occurrence of laccases in lichenized ascomycetes of the *Peltigerineae*
Z. LAUFER, R. P. BECKETT, F. V. MINIBAYEVA, S. LÜTHJE & M. BÖTTGER

854 Colonization of Sitka spruce stumps by decay-causing hymenomycetes in paired inoculations
C. M. WOODS, S. WOODWARD, M. A. PINARD & D. B. REDFERN

869 Can soil *Chytridiomycota* survive and grow in different osmotic potentials?
F. H. GLEASON, D. J. MIDGLEY, P. M. LETCHER & P. A. MCGEE

**Volume 110 Number 8 2006**

877 ***Mycological Research* News**
In this issue; Forthcoming International mycological meetings; *Myconet*

879 Fungal surface remodelling visualized by atomic force microscopy
H. MA, L. A. SNOOK, C. TIAN, S. G. W. KAMINSKYJ & T. E. S. DAHMS

887 Autofluorescence detection of arbuscular mycorrhizal fungal structures in palm roots: an underestimated experimental method
B. DREYER, A. MORTE, M. PÉREZ-GILABERT & M. HONRUBIA

898 Ultrastructural and molecular phylogenetic delineation of a new order, the *Rhizophydiales* (*Chytridiomycota*)
P. M. LETCHER, M. J. POWELL, P. F. CHURCHILL & J. G. CHAMBERS

916 Ribosomal and RPB2 DNA sequence analyses suggest that *Sporidesmium* and morphologically similar genera are polyphyletic
B. D. SHENOY, R. JEEWON, W. P. WU, D. J. BHAT & K. D. HYDE

929 Identification and characterization of non-pathogenic *Fusarium oxysporum* capable of increasing and decreasing Fusarium wilt severity
L. M. FORSYTH, L. J. SMITH & E. A. B. AITKEN

936 Potential diversity in vegetative compatibility groupings in the California population of *Gibberella circinata*
T. R. GORDON, S. C. KIRKPATRICK, J. C. PETERSEN & C. J. FRIEL

941 Value of host range, morphological, and genetic characteristics within the *Entomophthora muscae* species complex
A. B. JENSEN, L. THOMSEN & J. EILENBERG

951 *Glomerella truncata* sp. nov., the teleomorph of *Colletotrichum truncatum*
C. L. ARMSTRONG-CHO & S. BANNIZA

957 *Cryptococcus stepposus*, a new filobasidiaceous yeast species found in the Prioksko-terrasny biosphere reserve in Russia
W. I. GOLUBEV, J. P. SAMPAIO & E. W. GOLUBEVA

962 Characterization of fungi from hypersaline environments of solar salterns using morphological and molecular techniques
S. A. CANTRELL, L. CASILLAS-MARTÍNEZ & M. MOLINA

971 Influence of the region of origin on the mycobiota of grapes with emphasis on *Aspergillus* and *Penicillium* species
R. SERRA, A. LOURENÇO, P. ALÍPIO & A. VENÂNCIO

979 Genetic linkage between growth rate and the intersterility genes S and P in the basidiomycete *Heterobasidion annosum s.lat.*
Å. OLSON

985 Reorganization of mycelial networks of *Phanerochaete velutina* in response to new woody resources and collembola (*Folsomia candida*) grazing
J. WOOD, G. M. TORDOFF, T. H. JONES & L. BODDY

994 Response to copper stress in aposymbiotically grown lichen mycobiont *Cladonia cristatella*: uptake, viability, ergosterol and production of non-protein thiols
M. BAČKOR, B. PAWLIK-SKOWROŃSKA, J. TOMKO, J. BUĎOVÁ & L. SANITÀ DI TOPPI

1000 Experimental methods
N. P. MONEY

**Volume 110 Number 9 2006**

1001 ***Mycological Research* News**
In this issue; Full genome comparisons suggests hemiascomycetous yeasts are derived from filamentous fungi; An automated plate streaker

**Review**

1003 Fungi and fungal toxins as weapons
R. R. M. PATERSON

**Articles**

1011 Evolutionary implications of a rRNA-based phylogeny of *Harpellales*
M. M. WHITE

1025 Evolutionary relationships among aquatic anamorphs and teleomorphs: *Lemonniera*, *Margaritispora*, and *Goniopila*
J. CAMPBELL, C. SHEARER & L. MARVANOVÁ

1034 Phylogenetic and populational study of the *Tuber indicum* complex
Y. WANG, Z. M. TAN, D. C. ZHANG, C. MURAT, S. JEANDROZ & F. LE TACON

1046 Seven new calochroid and fulvoid species of *Cortinarius*
T. G. FRØSLEV, T. S. JEPPESEN & T. LÆSSØE

1059 Phylogenetic analysis of nuclear small subunit rDNA sequences suggests that the endangered African Pencil Cedar, *Juniperus procera*, is associated with distinct members of *Glomeraceae*
T. WUBET, M. WEIß, I. KOTTKE, D. TEKETAY & F. OBERWINKLER

1070 Confirmation and identification of parasitic stages of obligate endobionts (*Harpellales*) in blackflies (*Simuliidae*) by means of rRNA sequence data
M. M. WHITE, R. W. LICHTWARDT & M. H. COLBO

1080 Molecular phylogeny of the genus *Stereocaulon* (*Stereocaulaceae*, lichenized ascomycetes)
F. HÖGNABBA

1093 Molecular phylogeny supports a Northern Hemisphere origin of *Golovinomyces* (*Ascomycota*: *Erysiphales*)
S. TAKAMATSU, S. MATSUDA, S. NIINOMI & M. HAVRYLENKO

1102 A novel MFS transporter encoding gene in *Fusarium verticillioides* probably involved in iron-siderophore transport
E. LÓPEZ-ERRASQUÍN, M. T. GONZÁLEZ-JAÉN, C. CALLEJAS & C. VÁZQUEZ

1111 *Byssochlamys nivea* with patulin-producing capability has an isoepoxydon dehydrogenase gene (*idh*) with sequence homology to *Penicillium expansum* and *P. griseofulvum*
M. A. DOMBRINK-KURTZMAN & A. E. ENGBERG

1119 Structural and developmental studies of *Chlamydomyzium oviparasiticum* from *Rhabditis* nematodes and in culture
S. L. GLOCKLING & G. W. BEAKES

**Volume 110 Number 10 2006**

1127 ***Mycological Research* News**
In this issue; Rusts and allied fungi upgraded; Seeing fungal chromosomes

**Articles**

1129 *Penicillium purpurogenum* produces a family 1 acetyl xylan esterase containing a carbohydrate-binding module: characterization of the protein and its gene
F. GORDILLO, V. CAPUTO, A. PEIRANO, R. CHAVEZ, J. VAN BEEUMEN, I. VANDENBERGHE, M. CLAEYSSENS, P. BULL, M. C. RAVANAL & J. EYZAGUIRRE

1140 Two families of extracellular phospholipase C genes are present in aspergilli
D. TUCKWELL, S. E. LAVENS & M. BIRCH

1152 RNA polymerase II gene (*RPB2*) encoding the second largest protein subunit in *Phaeosphaeria nodorum* and *P. avenaria*
A. MALKUS, P.-F. LINDA CHANG, S. M. ZUZGA, K. CHUNG, J. SHAO, B. M. CUNFER, E. ARSENIUK & P. P. UENG

1165 Expression of genes involved in germination, conidiogenesis and pathogenesis in *Metarhizium anisopliae* using quantitative real-time RT-PCR
W. FANG & M. J. BIDOCHKA

1172 Glucose-mediated repression of autolysis and conidiogenesis in *Emericella nidulans*
T. EMRI, Z. MOLNÁR, T. VERES, T. PUSZTAHELYI, G. DUDÁS & I. PÓCSI

1179 Fatty acid composition of lipids from mushrooms belonging to the family *Boletaceae*
K. PEDNEAULT, P. ANGERS, A. GOSSELIN & R. J. TWEDDELL

1184 Detection and quantification of *Erysiphe necator* DNA in wine grapes and resultant must and juice
B. E. STUMMER, T. ZANKER, P. R. HARVEY & E. S. SCOTT

1193 Homothallism in *Sclerotinia minor*
M. EKINS, E. A. AITKEN & K. C. COULTER

1200 Genetic diversity in the mycoparasite *Sphaerellopsis filum* inferred from AFLP analysis and ITS–5.8S sequences
C. BAYON, Z.-W. YUAN, C. RUIZ, M. LIESEBACH & M. H. PEI

1207 Fungicides affect the production of extracellular mucilaginous material (ECMM) and the peripheral growth unit (PGU) in two wood-rotting basidiomycetes
D. VESENTINI, D. J. DICKINSON & R. J. MURPHY

1214 Elephant dung decomposition and coprophilous fungi in two habitats of semi-arid Botswana
G. S. MASUNGA, Ø. ANDRESEN, J. E. TAYLOR & S. S. DHILLION

1227 A new *Sparassis* species from Spain described using morphological and molecular data
J. B. BLANCO-DIOS, Z. WANG, M. BINDER & D. S. HIBBETT

1232 Morphological and ecological similarities: wood-boring beetles associated with novel xylose-fermenting yeasts, *Spathaspora passalidarum* gen. sp. nov. and *Candida jeffriesii* sp. nov.
N. H. NGUYEN, S.-O. SUH, C. J. MARSHALL & M. BLACKWELL

1242 *Polyancora globosa* gen. sp. nov., an aeroaquatic fungus from Malaysian peat swamp forests
H. VOGLMAYR & C. M. YULE

1253 Book reviews

**Volume 110 Number 11 2006**

1255 ***Mycological Research* News**
In this issue; Roundable at IMC8 debates a separate *Code* for naming fungi and revisits dual nomenclature

**Articles**

1257 Diverse tulasnelloid fungi form mycorrhizas with epiphytic orchids in an Andean cloud forest
J. P. SUÁREZ, M. WEIß, A. ABELE, S. GARNICA, F. OBERWINKLER & I. KOTTKE

1271 Molecular phylogeny of *Coniochaetales*
D. GARCÍA, A. M. STCHIGEL, J. CANO, M. CALDUCH, D. L. HAWKSWORTH & J. GUARRO

1290 Polyphasic classification of *Alternaria* isolated from hazelnut and walnut fruit in Europe
S. G. HONG, M. MACCARONI, P. J. FIGULI, B. M. PRYOR & A. BELISARIO

1301 A morphologically ill-founded powdery mildew species, *Pleochaeta indica*, is recognized as a phylogenetic species based on the analysis of the nuclear ribosomal DNA sequences
L. KISS, K. KHOSLA, T. JANKOVICS, S. NIINOMI, U. BRAUN & S. TAKAMATSU

1309 *Phytophthora foliorum* sp. nov., a new species causing leaf blight of azalea
R. DONAHOO, C. L. BLOMQUIST, S. L. THOMAS, J. K. MOULTON, D. E. L. COOKE & K. H. LAMOUR

1323 Stromata, sporangiomata and chlamydosori of *Phytophthora ramorum* on inoculated Mediterranean woody plants
E. MORALEJO, M. PUIG, J. A. GARCÍA & E. DESCALS

1333 Prescribed burning in a *Eucalyptus* woodland suppresses fruiting of hypogeous fungi, an important food source for mammals
J. M. TRAPPE, A. O. NICHOLLS, A. W. CLARIDGE & S. J. CORK

1340 The effects of culture media, solid substrates, and relative humidity on growth, sporulation and conidial discharge of *Valdensinia heterodoxa*
S. ZHAO & S. F. SHAMOUN

1347 Cell response of Antarctic and temperate strains of *Penicillium* spp. to different growth temperature
Y. G. GOCHEVA, E. T. KRUMOVA, L. S. SLOKOSKA, J. G. MITEVA, S. V. VASSILEV & M. B. ANGELOVA

1355 *In vitro* methods for antifungal susceptibility testing of *Trichophyton* spp.
M. E. S. BARROS, D. A. SANTOS & J. S. HAMDAN

1361 *Corylomyces*: a new genus of *Sordariales* from plant debris in France
A. M. STCHIGEL, J. CANO, A. N. MILLER, M. CALDUCH & J. GUARRO

**Volume 110 Number 12 2006**

1369 ***Mycological Research* News**
In this issue; New insights into the early evolution of Fungi; Living fungal fossils

**Papers**

1371 *Amorosia littoralis* gen. sp. nov., a new genus and species name for the scorpinone and caffeine-producing hyphomycete from the littoral zone in The Bahamas
P. G. MANTLE, D. L. HAWKSWORTH, S. PAZOUTOVA, L. M. COLLINSON & B. R. RASSING

1379 A yeast clade near *Candida kruisii* uncovered: nine novel *Candida* species associated with basidioma-feeding beetles
S.-O. SUH, N. H. NGUYEN & M. BLACKWELL

1395 Species of *Colletotrichum* on *Agavaceae*
D. F. FARR, M. C. AIME, A. Y. ROSSMAN & M. E. PALM

1409 *Cantharellus pleurotoides*, a new and unusual basidiomycete from Guyana
T. W. HENKEL, M. C. AIME, H. MEHL & S. L. MILLER

1413 Multilocus sequence analysis of *Fusarium pseudograminearum* reveals a single phylogenetic species
J. B. SCOTT & S. CHAKRABORTY

1426 Fruiting body-guided molecular identification of root-tip mantle mycelia provides strong indications of ectomycorrhizal associations in two species of *Sistotrema* (*Basidiomycota*)
R. H. NILSSON, K.-H. LARSSON, E. LARSSON & U. KÕLJALG

1433 Forest stand age and the occurrence of chanterelle (*Cantharellus*) species in Oregon's central Cascade Mountains
S. M. DUNHAM, T. E. O'DELL & R. MOLINA

1441 Diversity and distribution of saprobic microfungi in leaf litter of an Australian tropical rainforest
B. C. PAULUS, J. KANOWSKI, P. A. GADEK & K. D. HYDE

1455 Phosphonoacetic acid utilization by fungal isolates: occurrence and properties of a phosphonoacetate hydrolase in some penicillia
G. FORLANI, M. KLIMEK-OCHAB, J. JAWORSKI, B. LEJCZAK & A. M. PICCO

1464 Fungal antagonists of the plant pathogen *Rhizoctonia solani*: selection, control efficacy and influence on the indigenous microbial community
R. GROSCH, K. SCHERWINSKI, J. LOTTMANN & G. BERG

1475 Horizontal transfer and hypovirulence associated with double-stranded RNA in *Beauveria bassiana*
P. R. DALZOTO, C. GLIENKE-BLANCO, V. KAVA-CORDEIRO, J. Z. RIBEIRO, E. W. KITAJIMA & J. L. AZEVEDO

1482 Book reviews

# Author Index Volume 110, 2006


Abele, A., *see* Suárez, J. P. H. *et al.*
Adiobo, A., *see* Perneel, M. *et al.*
Aime, M. C., *see* Farr, D. F. *et al.*
Aime, M. C., *see* Henkel, T. W. *et al.*
Aitken, E. A., *see* Ekins, M. *et al.*
Aitken, E. A. B., *see* Forsyth, L. M. *et al.*
Al-Adawi, A.O., *see* Al-Subhi A. M., *et al.*
Al-Samarrai, T. H., *see* Zhang, N. *et al.*
Al-Subhi, A. M., Al-Adawi, A. O., Van Wyk, M., Deadman, M. L., Wingfield M. J. *Ceratocystis omanensis*, a new species from diseased mango trees in Oman . . . . . 237
Alípio, P., *see* Serra, R. *et al.*
Allaway, W G., *see* Pareek, M., *et al.*
Anderson, N., Szemes, M., O'Brien, P., De Weerdt, M., Schoen, C., Boender, P., Bonants, P. Use of hybridization melting kinetics for detecting *Phytophthora* species using three-dimensional microarrays: demonstration of a novel concept for the differentiation of detection targets . . . . . 664
André Gosselin, *see* Karine Pedneault, *et al.*
Andreotti, E., *see* Mares, D. *et al.*
Andresen, Ø., *see* Masunga, G. S. *et al.*
Angelova, M. B., *see* Gocheva, *et al.*
Armstrong-Cho, C. L., Banniza, S. *Glomerella truncata* sp. nov., the teleomorph of *Colletotrichum truncatum* . . . . . 951
Arseniuk, E., *see* Malkus, A. *et al.*
Asakawa, Y., *see* Stadler, M. *et al.*
Asbrock, P., *see* Davis, D. J. *et al.*
Ashford, A. E., *see* Pareek, M., *et al.*
Azevedo, J. L., *see* Dalzoto, *et al.*
Azevedo, R. A., *see* Rincones, J. *et al.*

Bačkor, M., Pawlik-Skowrońska, B., Tomko, J., Budˇová J., Sanità di Toppi L. Response to copper stress in aposymbiotically grown lichen mycobiont *Cladonia cristatella*: uptake, viability, ergosterol and production of non-protein thiols . . . . . 994
Bain, R. A., *see* Ritchie, F. *et al.*
Baker, J., *see* Gomez, D. R. *et al.*
Baloch, E., Grube, M. Evolution and phylogenetic relationships within *Porinaceae* (*Ostropomycetidae*), focusing on foliicolous species . . . . . 125
Bandyopadhyay, R., *see* Tooley, P. W. *et al.*
Banniza, S., *see* Armstrong-Cho, C. L., *et al.*
Barreto, R. W., *see* Liberato, J. R. *et al.*
Barros, M. E. S., Santos, D. A., Hamdan, J. S. *In vitro* methods for antifungal susceptibility testing of *Trichophyton* spp. . . 1355
Barton, J., *see* Gomez D. R. *et al.*
Bateman, G. L., *see* Kwaśna, *et al.*
Bayon, C., Yuan, Z.-W., Ruiz, C., Liesebach, M., Pei, M. H. Genetic diversity in the mycoparasite *Sphaerellopsis filum* inferred from AFLP analysis and ITS–5.8S sequences . . . . . 1200
Beakes, G. W., *see* Glockling, *et al.*
Beales, P., *see* Cook, *et al.*
Beckett, R. P., *see* Laufer, Z. *et al.*
Bedard, J. E. J., Schurko, A. M., de Cock, A. W. A. M., Klassen, G. R. Diversity and evolution of 5S rRNA gene family organization in *Pythium* . . . . . 86
Belisario, A., *see* Hong, *et al.*
Bendel, M., Kienast, F., Rigling, D. Genetic population structure of three *Armillaria* species at the landscape scale: a case study from Swiss *Pinus mugo* forests . . . . . 705
Berg, G., *see* Grosch, R. *et al.*
Bernicchia, A., Fugazzola, M. A., Gemelli, V., Mantovani, B., Lucchetti, A., Cesari, M., Speroni, E. DNA recovered and sequenced from an almost 7000 y-old Neolithic polypore, *Daedaleopsis tricolor* . . . . . 14
Bhat, D. J., *see* Shenoy, B. D. *et al.*
Bidochka, M. J., *see* Fang, W. *et al.*
Binder, M., *see* Blanco-Dios, J. B, *et al.*
Birch, M., *see* Tuckwell, D. *et al.*
Blackwell, M., *see* Nguyen, N. H. *et al.*
Blackwell, M., *see* Suh, S.-O. *et al.*
Blanco-Dios, J. B., Wang Z., Binder M., Hibbett D. S. A new *Sparassis* species from Spain described using morphological and molecular data. . . . . 1227
Błaszkowski, J., Renker C., Buscot F. *Glomus drummondii* and *G. walkeri*, two new species of arbuscular mycorrhizal fungi (*Glomeromycota*) . . . . . 555
Blomquist, C. L., *see* Donahoo, R. *et al.*
Boddy, L., *see* Tordoff, G. M. *et al.*
Boddy, L., *see* Wood, J. *et al.*
Boddy, L. Fungal ecology . . . . . 120
Boender, P., *see* Anderson, N. *et al.*
Bonants, P., *see* Anderson, N. *et al.*
Bonati, C., *see* Davis, D. J. *et al.*
Bonfante, P. Mycorrhizas . . . . . 497
Both, E. E., *see* Taylor, A. F. S. *et al.*
Böttger, M., *see* Laufer, Z. *et al.*
Bougoure, D. S., Cairney, J. W. G. Chitinolytic activities of ericoid mycorrhizal and other root-associated fungi from *Epacris pulchella* (*Ericaceae*). . . . . 328
Bousquet, J., *see* Jany, J.-L. *et al.*
Boyle, H., Zimdars B., Renker, C., Buscot, F. A molecular phylogeny of *Hebeloma* species from Europe . . . . . 369
Brasier, C. M., *see* Dick, M. A. *et al.*
Braun, U., *see* Crous, P. W. *et al.*
Braun, U., *see* Kiss, *et al.*
Breuillin, F., Dutech, C., Robin, C. Genetic diversity of the Chestnut blight fungus *Cryphonectria parasitica* in four French populations assessed by microsatellite markers . . . . . 288
Bruns, T. D., *see* Izzo, A. *et al.*
Buczacki, S. T. Fungal natural history. . . . . 119
Budˇová, J., *see* Bačkor, M. *et al.*
Bull, P., *see* Gordillo, *et al.*
Burgess, T., *see* Cortinas, M.-N. *et al.*
Buscot, F., *see* Błaszkowski, *et al.*
Buscot, F., *see* Boyle, H. *et al.*

Cai, L., Jeewon, R., Hyde, K. D. Molecular Systematics of *Zopfiella* and allied genera: evidence from multi-gene sequence analyses . . . . . 359
Cai, L., Jeewon R., Hyde, K. D. Phylogenetic investigations of *Sordariaceae* based on multiple gene sequences and morphology . . . . . 137
Cairney, J. W. G., *see* Bougoure, D. S, *et al.*
Calduch, M., *see* García, D. *et al.*
Calduch, M., *see* Stchigel, A. M. *et al.*
Callejas, C., *see* López-Errasquín, E. *et al.*
Campbell, J., Shearer, C., Marvanová, L. Evolutionary relationships among aquatic anamorphs and teleomorphs: *Lemonniera*, *Margaritispora*, and *Goniopila* . . . . . 1025
Cano, J., *see* García, D. *et al.*
Cano, J., *see* Stchigel, A. M. *et al.*

Canright, M., *see* Izzo, A. *et al.*
Cantrell, S. A., Casillas-Martínez, L., Molina, M. Characterization of fungi from hypersaline environments of solar salterns using morphological and molecular techniques . . . . . 962
Caputo, V., *see* Gordillo, *et al.*
Carlier, F.-X., Decock, C., Jacobs, K., Maraite, H. *Ophiostoma arduennense* sp. nov. (*Ophiostomatales, Ascomycota*) from *Fagus sylvatica* in southern Belgium . . . . . 801
Carras, M. M., *see* Tooley, P. W. *et al.*
Casillas-Martínez, L., *see* Cantrell, S. A.*et al.*
Cesari, M., *see* Bernicchia, A, *et al.*
Chakraborty, S., *see* Scott, J. B. *et al.*
Chambers, J. G., *see* Letcher, P. M. *et al.*
Chaverri, P., *see* Liu, M. *et al.*
Chavez, R., *see* Gordillo, *et al.*
Chen, X., *see* Park, Y. *et al.*
Christensen, M. J., *see* Zhang, N. *et al.*
Chung, K.-r., *see* Malkus, A. *et al.*
Churchill, P. F., *see* Letcher, P. M. *et al.*
Cilliers, A. J., *see* Geldenhuis, M. M. *et al.*
Claeyssens, M., *see* Gordillo, *et al.*
Claridge, A. W., *see* Trappe, J. M. *et al.*
Clegg, P., *see* Gryzenhout, M. A. R. I. E. K. A. *et al.*
Colbo, M. H., *see* White, M. M. *et al.*
Collinson, L. M., *see* Mantle, P. G. *et al.*
Constantinescu, O., *see* Voglmayr, H. *et al.*
Cook, R. T. A., Henricot, B., Henrici, A., Beales, P. Morphological and phylogenetic comparisons amongst powdery mildews on *Catalpa* in UK . . . . . 672
Cooke, D. E. L., *see* Dick, M. A. *et al.*
Cooke, D. E. L., *see* Donahoo, R. *et al.*
Cork, S. J., *see* Trappe, J. M. *et al.*
Cortinas, M.-N., Burgess, T., Dell, B., Xu, D., Crous, P. W., Wingfield, B. D., Wingfield M. J. First record of *Colletogloeopsis zuluense* comb. nov., causing a stem canker of *Eucalyptus* in China . . . . . 229
Coulter, K. C., *see* Ekins, M. *et al.*
Crewe, A. T., Purvis, O. W., Wedin, M. Molecular phylogeny of *Acarosporaceae* (*Ascomycota*) with focus on the proposed genus *Polysporinopsis* . . . . . 521
Crous, P. W., *see* Cortinas, M.-N. *et al.*
Crous, P. W., Schroers, H.-J., Groenewald, J. Z., Braun, U., Schubert, K. *Metulocladosporiella* gen. nov. for the causal organism of Cladosporium speckle disease of banana. . 264
Cunfer, B. M., *see* Malkus, A. *et al.*

Da Silva, I. R., *see* Ferreira Gregorio, A. P. *et al.*
Dahms, T. E. S., *see* Ma, H. *et al.*
Dalzoto, P. R., Glienke-Blanco, C., Kava-Cordeiro, V., Ribeiro J. Z., Kitajima, E. W., Azevedo, J. L. Horizontal transfer and hypovirulence associated with double-stranded RNA in *Beauveria bassiana* . . . . . 1475
Davis, D. J., Lanter, K., Makselan, S., Bonati, C., Asbrock, P., Ravishankar, J. P., Money, N. P. Relationship between temperature optima and secreted protease activities of three *Pythium* species and pathogenicity toward plant and animal hosts . . . . . 96
de Cock, A. W. A. M., *see* Bedard, J. E. J, *et al.*
de Weerdt, M., *see* Anderson, N. *et al.*
Deadman, M. L., *see* Al-Subhi A. M., *et al.*
Decock, C., *see* Carlier, F.-X. *et al.*
del Prado, R., Schmitt, I., Kautz, S., Palice, Z., Lücking, R., Lumbsch, H. T. Molecular data place *Trypetheliaceae* in *Dothideomycetes* . . . . . 511
Dell, B., *see* Cortinas, M.-N. *et al.*
Descals, E., *see* Moralejo, E. *et al.*
Dhillion, S. S., *see* Masunga, G. S. *et al.*
Dick, M. A., Dobbie, K., Cooke, D. E. L., Brasier, C. M. *Phytophthora captiosa* sp. nov. and *P. fallax* sp. nov. causing crown dieback of *Eucalyptus* in New Zealand . . . . . 393
Dickinson, D. J., *see* Vesentini, D., *et al.*
Dighton, J. Biodiversity . . . . . 246
Dobbie, K., *see* Dick, M. A. *et al.*
Dombrink-Kurtzman, M. A., Engberg, A. E. *Byssochlamys nivea* with patulin-producing capability has an isoepoxydon dehydrogenase gene (*idh*) with sequence homology to *Penicillium expansum* and *P. griseofulvum*. . . . . 1111
Donahoo, R., Blomquist, C. L., Thomas, S. L., Moulton, J. K., Cooke, D. E. L., Lamour, K. H. *Phytophthora foliorum* sp. nov., a new species causing leaf blight of azalea . . . . . 1309
Döring, H., *see* Wedin, M. *et al.*
Dreyer, B., Morte, A., Pérez-Gilabert, M., Honrubia, M. Autofluorescence detection of arbuscular mycorrhizal fungal structures in palm roots: an underestimated experimental method. . . . . 887
Dudás, G., *see* Emri, T. *et al.*
Dunham, S. M., O'Dell, T. E., Molina R. Forest stand age and the occurrence of chanterelle (*Cantharellus*) species in Oregon's central Cascade Mountains . . . . . 1433
Dunk, C., *see* May, T. W. *et al.*
Durand, R., *see* Verdin, A. *et al.*
Dutech, C., *see* Breuillin, F. *et al.*

Eberhardt, U., *see* Taylor, A. F. S. *et al.*
Eilenberg, J., *see* Jensen, A. B. *et al.*
Eilenberg, J., *see* Meyling, N. V. *et al.*
Ekins, M. M., Aitken, E. A., Coulter, K. C. Homothallism in *Sclerotinia minor*. . . . . 1193
Emri, T., Molnár, Z., Veres, T., Pusztahelyi, T., Dudás, G., Pócsi, I. Glucose-mediated repression of autolysis and conidiogenesis in *Emericella nidulans* . . . . . 1172
Engberg, A. E., *see* Dombrink-Kurtzman, *et al.*
Erbil, C. K., *see* Nguyen, N. H. *et al.*
Eriksson, O., *see* Kruys, Å. *et al.*
Evans, H. C., *see* Samuels, G. J. *et al.*
Evans, K. J., *see* Gomez, D. R. *et al.*
Eyzaguirre, J., *see* Gordillo, *et al.*

Fang, W., Bidochka, M. J. Expression of genes involved in germination, conidiogenesis and pathogenesis in *Metarhizium anisopliae* using quantitative real-time RT-PCR. . . . . 1165
Farr, D. F., Aime, M. C., Rossman, A. Y., Palm, M. E. Species of *Colletotrichum* on *Agavaceae* . . . . . 1395
Fatehi, J., *see* Voglmayr, H. *et al.*
Ferreira Gregorio, A. P., Da Silva, I. R., Sedarati, M. R., Hedger, J. N. Changes in production of lignin degrading enzymes during interactions between mycelia of the tropical decomposer basidiomycetes *Marasmiellus troyanus* and *Marasmius pallescens*. . . . . 161
Figlas, D., *see* Moore, D. *et al.*
Figueira, A., *see* Rincones, J. *et al.*
Figuli, P. J., *see* Hong, *et al.*
Floren, C., *see* Perneel, M. *et al.*
Forlani, G., *see* Mares, D. *et al.*
Forlani, G., Klimek-Ochab, M., Jaworski, J., Lejczak B., Picco, A. M. Phosphonoacetic acid utilization by fungal isolates: occurrence and properties of a phosphonoacetate hydrolase in some penicillia . . . . . 1455
Forsyth, L. M., Smith, L. J., Aitken, E. A. B. Identification and characterization of non-pathogenic *Fusarium oxysporum* capable of increasing and decreasing Fusarium wilt severity . . . . 929
Fotopoulos, V., Holmes, R., Hall, J. L., Williams, L. E. Isolation, cloning and expression analysis of *EcPMA1*, a putative plasma membrane $H^+$-ATPase transporter gene from the biotrophic pathogenic fungus *Erysiphe cichoracearum*. . . 28
Friel, C. J., *see* Gordon, *et al.*
Fugazzola, M. A., *see* Bernicchia, A, *et al.*

G. Frøslev, T., S. Jeppesen, T., Laessøe, T. Seven new calochroid and fulvoid species of *Cortinarius* . . . . . 1046
Gadek, P. A., *see* Paulus, B. C. *et al.*

Gagné, A., *see* Jany, J.-L. *et al.*
Gamundí, I. J., Messuti, M. I. A new species of *Phaeohelotium* from *Nothofagus* forests in Argentina and Chile, with a key to the Southern Hemisphere species . . . . . 493
Ganley, R. J., Newcombe, G. Fungal endophytes in seeds and needles of *Pinus monticola* . . . . . 318
García, D., Stchigel A. M., Cano, J., Calduch, M., Hawksworth, D. L., Guarro J. Molecular phylogeny of *Coniochaetales* . . . . 1271
García, J. A., *see* Moralejo, E. *et al.*
Garnica, S., *see* Suárez, J. P. H. *et al.*
Geldenhuis, M. M., Roux, J., Cilliers, A. J., Wingfield, B. D., Wingfield, M. J. Clonality in South African isolates and evidence for a European origin of the root pathogen *Thielaviopsis basicola* 306
Gemelli, V., *see* Bernicchia, A, *et al.*
Gilenstam, G., *see* Wedin, M. *et al.*
Gleason, F. H., Midgley, D. J., Letcher, P. M., McGee, P. A. Can soil *Chytridiomycota* survive and grow in different osmotic potentials? . . . . . 869
Glenn, A. E. Natural variation of ascospore and conidial germination by *Fusarium verticillioides* and other *Fusarium* species . 211
Glienke-Blanco, C., *see* Dalzoto, P. R.*et al.*
Glockling, S. L., Beakes, G. W. Structural and developmental studies of *Chlamydomyzium oviparasiticum* from *Rhabditis* nematodes and in culture . . . . . 1119
Gocheva, Y. G., Krumova, E. T., Slokoska, L. S., Miteva, J. G., Vassilev, S. V., Angelova, M. B. Cell response of Antarctic and temperate strains of *Penicillium* spp. to different growth temperature . . . . . 1347
Göker, M., *see* Thines, M. *et al.*
Golubev, W. I., Sampaio, J. P., Golubeva, E. W. *Cryptococcus stepposus*, a new filobasidiaceous yeast species found in the Prioksko-terrasny biosphere reserve in Russia . . . . . 957
Golubeva, E. W., *see* Golubev, W. I. *et al.*
Gomez, D. R., Evans, K. J., Harvey, P. R., Baker, J., Barton, J., Jourdan, M., Morin, L., Pennycook, S. R., Scott, E. S. Genetic diversity in the blackberry rust pathogen, *Phragmidium violaceum*, in Europe and Australasia as revealed by analysis of SAMPL . . . . . 423
González-Jaén, M. T., *see* López-Errasquín, E. *et al.*
Gorbushina, A. A., *see* Kogej, T. *et al.*
Gordillo, F., Caputo, V., Peirano, A., Chavez, R., Van Beeumen, J., Vandenberghe, I., Claeyssens, M., Bull P., Ravanal, M. C., Eyzaguirre, J. *Penicillium purpurogenum* produces a family 1 acetyl xylan esterase containing a carbohydrate-binding module: characterization of the protein and its gene 1129
Gordon, T. R., Kirkpatrick, S. C., Petersen, J. C., Friel, C. J. Potential diversity in vegetative compatibility groupings in the California population of *Gibberella circinata* . . . . . 936
Goriely, A., Tabor, M. Estimates of biomechanical forces in *Magnaporthe grisea* . . . . . 755
Grandmougin-Ferjani, A., *see* Verdin, A. *et al.*
Griffith, G. W., *see* Rincones, J. *et al.*
Groenewald, J. Z., *see* Crous, P. W. *et al.*
Groenewald, S., Van Den Berg, N., Marasas, W. F. O., Viljoen, A. The application of high-throughput AFLP's in assessing genetic diversity in *Fusarium oxysporum* f. sp. *cubense* . . . . . 297
Grosch, R., Scherwinski, K., Lottmann, J., Berg, G. Fungal antagonists of the plant pathogen *Rhizoctonia solani*: selection, control efficacy and influence on the indigenous microbial community . . . . . 1464
Grube, M., *see* Baloch, E, *et al.*
Grube, M., *see* Staiger, B. *et al.*
Gryzenhout, M. A. R. I. E. K. A., Rodas, C. A., Mena Portales, J., Clegg, P., Wingfield, B. D., Wingfield, M. J. Novel hosts of the *Eucalyptus* canker pathogen *Chrysoporthe cubensis* and a new *Chrysoporthe* species from Colombia . . . . . 833
Guarro, J., *see* García D. *et al.*
Guarro, J., *see* Stchigel, A. M. *et al.*
Guccione, S., *see* Mares, D. *et al.*
Gunde-Cimerman, N., *see* Kogej, T. *et al.*

Hall, J. L., *see* Fotopoulos, V. *et al.*
Hallsworth, J. E., *see* Kashangura, C. *et al.*
Hamdan, J. S., *see* Barros, M. E. S, *et al.*
Harris, S. D., *see* Virag, A. *et al.*
Harvey, P. R., *see* Gomez D. R. *et al.*
Harvey, P. R., *see* Stummer, B. E. *et al.*
Hashimoto, T., *see* Stadler, M. *et al.*
Havrylenko, M., *see* Takamatsu, S. *et al.*
Hawksworth, D. L., *see* García, D. *et al.*
Hawksworth, D. L., *see* Mantle, P. G. *et al.*
Hawksworth, D. L. *Mycological Research*: instructions and guidelines for authors . . . . . 110
Hawksworth, D. L. British and Irish Basidiomycetes . . . . . 247
Hawksworth, D. L. Forest and plant pathology . . . . . 1253
Hawksworth, D. L. Fungal biology . . . . . 121
Hawksworth, D. L. Mycologist's Lives . . . . . 498
Hawksworth, D. L. New microbiology texts . . . . . 1482
Hedger, J. N., *see* Ferreira Gregoric, A. P. *et al.*
Henkel, T. W., Aime, M. C., Mehl, H., Miller, S. L. *Cantharellus pleurotoides*, a new and unusual basidiomycete from Guyana . . 1409
Henrici, A., *see* Cook, R. T. A. *et al.*
Henricot, B., *see* Cook, R. T. A. *et al.*
Hibbett, D. S., *see* Blanco-Dios, J. B, *et al.*
Higashi, K., *see* Moriura, N. *et al.*
Hills, A. E., *see* Taylor, A. F. S. *et al.*
Hintz, W. E., *see* Temple, B. *et al.*
Hirai, T., *see* Moriura, N. *et al.*
Hodge, K. T., *see* Liu M. *et al.*
Höfte, M., *see* Perneel, M. *et al.*
Högnabba, F. Molecular phylogeny of the genus *Stereocaulon* (*Stereocaulaceae*, lichenized ascomycetes) . . . . . 1080
Holmes, K. A., *see* Samuels, G. J. *et al.*
Holmes, R., *see* Fotopoulos, V. *et al.*
Hong, S. G., Maccaroni, M., Figuli, P. J., Pryor, B. M., Belisario, A. Polyphasic classification of *Alternaria* isolated from hazelnut and walnut fruit in Europe . . . . . 1290
Honrubia, M., *see* Dreyer, B. *et al.*
Hyde, K. D., *see* Cai, L. *et al.*
Hyde, K. D., *see* Li Y. *et al.*
Hyde, K. D., *see* Paulus, B. C. *et al.*
Hyde, K. D., *see* Shenoy, B. D. *et al.*

Iotti, M., Zambonelli, A. A quick and precise technique for identifying ectomycorrhizas by PCR . . . . . 60
Isakeit, T., *see* Perumal, R. *et al.*
Ismaiel, A., *see* Samuels, G. J. *et al.*
Izzo, A., Canright, M., Bruns, T. D. The effects of heat treatments on ectomycorrhizal resistant propagules and their ability to colonize bioassay seedlings. . . . . 196

Jacobs, K., *see* Carlier, F.-X. *et al.*
Jankovics, T., *see* Kiss, *et al.*
Jany, J.-L., Bousquet, J., Gagné, A., Khasa, D. P. Simple sequence repeat (SSR) markers in the ectomycorrhizal fungus *Laccaria bicolor* for environmental monitoring of introduced strains and molecular ecology applications . . . . . 51
Jaworski, J., *see* Forlani, G. *et al.*
Jeandroz, S., *see* Wang, Y. *et al.*
Jeewon, R., *see* Cai, L. *et al.*
Jeewon, R., *see* Li, Y. *et al.*
Jeewon, R., *see* Shenoy, B. D. *et al.*
Jensen, A. B., Thomsen, L., Eilenberg, J. Value of host range, morphological, and genetic characteristics within the *Entomophthora muscae* species complex. . . . . 941
Jensen, D. F., *see* Sarrocco, S. *et al.*
Jones, T. H., *see* Tordoff, G. M. *et al.*

Jones, T. H., *see* Wood, J. *et al.*
Jourdan, M., *see* Gomez D. R. *et al.*

Kakutani, K., *see* Moriura, N. *et al.*
Kalb, K., *see* Staiger, B. *et al.*
Kaminskyj, S. G. W., *see* Ma, H. *et al.*
Kanowski, J., *see* Paulus, B. C. *et al.*
Karine Pedneault, Paul Angers, André Gosselin, Russell J. Tweddell. Fatty acid composition of lipids from mushrooms belonging to the family *Boletaceae* . . . . . 1179
Kashangura, C., Hallsworth, J. E., Mswaka, A. Y. Phenotypic diversity amongst strains of *Pleurotus sajor-caju*: implications for cultivation in arid environments . . . . . 312
Katile, S., *see* Perumal, R. *et al.*
Kautz, S., *see* del Prado, R. *et al.*
Kava-Cordeiro, V., *see* Dalzoto, P. R. *et al.*
Kerp, H., *see* Taylor, A. F. S. *et al.*
Khasa, D. P., *see* Jany, J.-L. *et al.*
Khosla, K., *see* Kiss, *et al.*
Kienast, F., *see* Bendel, M, *et al.*
Kirkpatrick, S. C., *see* Gordon, T. R. *et al.*
Kiss, L., Khosla, K., Jankovics, T., Niinomi, S., Braun, U., Takamatsu, S. A morphologically ill-founded powdery mildew species, *Pleochaeta indica*, is recognized as a phylogenetic species based on the analysis of the nuclear ribosomal DNA sequences . . . . . 1301
Kitajima, E. W., *see* Dalzoto, P. R. *et al.*
Klassen, G. R., *see* Bedard, J. E. J, *et al.*
Klimek-Ochab, M., *see* Forlani, G. *et al.*
Kogej, T., Gorbushina, A. A., Gunde-Cimerman, N. Hypersaline conditions induce changes in cell-wall melanization and colony structure in a halophilic and a xerophilic black yeast species of the genus *Trimmatostroma* . . . . . 713
Kohlmeyer, J., *see* Schoch, C. L. *et al.*
Kõljalg, U., *see* Nilsson, R. H. *et al.*
Kõljalg, U., *see* Tedersoo, L. *et al.*
Kottke, I., *see* Suárez, J. P. H. *et al.*
Kottke, I., *see* Wubet, T. *et al.*
Krings, M., *see* Taylor, A. F. S. *et al.*
Krumova, E. T., *see* Gocheva, *et al.*
Kruys, Å., Eriksson, O., Wedin, M. Phylogenetic relationships of coprophilous *Pleosporales* (*Dothideomycetes*, *Ascomycota*), and the classification of some bitunicate taxa of unknown position . . . . . 527
Kusakari, S.-i., *see* Moriura, N. *et al.*
Kwaśna, H., Ward, E., Bateman, G. L. Phylogenetic relationships among *Zygomycetes* from soil based on ITS1/2 rDNA sequences . . . . . 501

Lamour, K. H., *see* Donahoo, R. *et al.*
Lane, G. A., *see* Zhang, N. *et al.*
Lanter, K., *see* Davis, D. J. *et al.*
Larsson, E., *see* Nilsson, R. H. *et al.*
Larsson, E., *see* Tedersoo, L. *et al.*
Larsson, K.-H., *see* Nilsson, R. H. *et al.*
Laruelle, F., *see* Verdin, A. *et al.*
Laessoe, T., *see* G. Frøslev, T., *et al.*
Laufer, Z., Beckett, R. P., Minibayeva, F. V., Lüthje, S., Böttger, M. Occurrence of laccases in lichenized ascomycetes of the *Peltigerineae* . . . . . 846
Lavens, S. E., *see* Tuckwell, D. *et al.*
Lazzarini, G. M. J., Rocha, L. F. N., Luz, C. Impact of moisture on *in vitro* germination of *Metarhizium anisopliae* and *Beauveria bassiana* and their activity on *Triatoma infestans* . . . . . 485
Le Tacon, F., *see* Wang, Y. *et al.*
Leal, G. A., *see* Rincones, J. *et al.*
Lebel, T., *see* May, T. W. *et al.*
Lebel, T., *see* Moore, D. *et al.*
Lejczak, B., *see* Forlani, G. *et al.*
Letcher, P. M., *see* Gleason, F. H. *et al.*
Letcher, P. M., Powell, M. J., Churchill, P. F., Chambers, J. G. Ultrastructural and molecular phylogenetic delineation of a new order, the *Rhizophydiales* (*Chytridiomycota*) . . . . . 898
Lévesque, A., *see* Perneel, M. *et al.*
Li, Y., Jeewon, R., Hyde, K. D., Mo, M.-H., Zhang, K.-Q. Two new species of nematode-trapping fungi: relationships inferred from morphology, rDNA and protein gene sequence analyses . . . . . 790
Liberato, J. R., Barreto, R. W., Niinomi, S., Takamatsu, S. *Queirozia turbinata* (*Phyllactinieae*, *Erysiphaceae*): a powdery mildew with a dematiaceous anamorph . . . . . 567
Lichtwardt, R. W., *see* White, M. M. *et al.*
Liesebach, M., *see* Bayon, C, *et al.*
Linda Chang, P.-F., *see* Malkus, A. *et al.*
Liu, M., Chaverri, P., Hodge, K. T. A taxonomic revision of the insect biocontrol fungus *Aschersonia aleyrodis*, its allies with white stromata and their *Hypocrella* sexual states . . . . . 537
López-Errasquín, E., González-Jaén, M. T., Callejas, C., Vázquez, C. A novel MFS transporter encoding gene in *Fusarium verticillioides* probably involved in iron-siderophore transport. 1102
Lottmann, J., *see* Grosch, R. *et al.*
Lounès-Hadj Sahraoui, A., *see* Verdin, A. *et al.*
Lourenço, A., *see* Serra, R. *et al.*
Lübeck, M., *see* Sarrocco, S. *et al.*
Lucchetti, A., *see* Bernicchia, A, *et al.*
Lücking, R., *see* del Prado, R. *et al.*
Lumbsch, H. T., *see* del Prado, R. *et al.*
Lüthje, S., *see* Laufer, Z. *et al.*
Luz, C., *see* Lazzarini, G. M. J. *et al.*

Ma, H., Snook, L. A., Tian, C., Kaminskyj, S. G. W., Dahms, T. E. S. Fungal surface remodelling visualized by atomic force microscopy . . . . . 879
Maccaroni, M., *see* Hong, S. G. *et al.*
Magill, C. W., *see* Perumal, R. *et al.*
Makselan, S., *see* Davis, D. J. *et al.*
Malkus, A., Linda Chang, P.-F., Zuzga, S. M., Chung, K.-r., Shao, J., Cunfer, B. M., Arseniuk E., Ueng P. P. RNA polymerase II gene (*RPB2*) encoding the second largest protein subunit in *Phaeosphaeria nodorum* and *P. avenaria* . . . . . 1152
Mammerler, R., *see* Nell, M., *et al.*
Mantle, P. G., Hawksworth, D. L., Pazoutova, S., Collinson, L. M., Rassing B. R. *Amorosia littoralis* gen. sp. nov., a new genus and species name for the scorpinone and caffeine-producing hyphomycete from the littoral zone in The Bahamas . . 1371
Mantovani, B., *see* Bernicchia, A, *et al.*
Maraite, H., *see* Carlier, F.-X. *et al.*
Marasas, W. F. O., *see* Groenewald, S. *et al.*
Mares, D., Romagnoli, C., Andreotti, E., Forlani, G., Guccione, S., Vicentini, C. B. Emerging antifungal azoles and effects on *Magnaporthe grisea* . . . . . 686
Marshall, C. J., *see* Nguyen, N. H. *et al.*
Martin, K. L., McDougall, B. M., Unkles, S. E., Seviour, R. J. The three β-1,3-glucanases from *Acremonium blochii* strain C59 appear to be encoded by separate genes . . . . . 66
Marvanová, L., *see* Campbell, J. *et al.*
Masunga, G. S., Andresen, Ø., Taylor, J. E., Dhillion, S. S. Elephant dung decomposition and coprophilous fungi in two habitats of semi-arid Botswana . . . . . 1214
Matsuda, S., *see* Takamatsu, S. *et al.*
Matsuda, Y., *see* Moriura, N. *et al.*
May, T. W., Dunk, C., Lebel, T. *Mycological Research* News . . . 499
Mazotti, G. D., *see* Rincones, J. *et al.*
McDougall, B. M., *see* Martin, K. L. *et al.*
McGee, P. A., *see* Gleason, F. H. *et al.*
McMillan, L. K., *see* Zhang, N. *et al.*
McQuilken, M. P., *see* Ritchie, F. *et al.*
Mehl, H., *see* Henkel, T. W. *et al.*
Meinhardt, L. W., *see* Rincones, J. *et al.*
Mena Portales, J., *see* Gryzenhout, M. A. R. I. E. K. A. *et al.*

Menz, M., *see* Perumal, R. *et al.*
Meškauskas, A., *see* Moore, D. *et al.*
Messuti, M. I., *see* Gamundí, I. J. *et al.*
Meyling, N. V., Eilenberg, J. Isolation and characterisation of *Beauveria bassiana* isolates from phylloplanes of hedgerow vegetation . . . . . 188
Midgley, D. J., *see* Gleason, F. H. *et al.*
Mikkelsen, L., *see* Sarrocco, S. *et al.*
Miller, A. N., *see* Stchigel, A. M. *et al.*
Miller, S. L., *see* Henkel, T. W. *et al.*
Miller, S. L., *see* Smith, M. E. *et al.*
Minibayeva, F. V., *see* Laufer, Z. *et al.*
Miteva, J. G., *see* Gocheva, *et al.*
Mo, M.-H., *see* Li, Y. *et al.*
Mohali, S., Slippers, B., Wingfield, M. J. Two new *Fusicoccum* species from *Acacia* and *Eucalyptus* in Venezuela, based on morphology and DNA sequence data . . . . . 405
Molina, M., *see* Cantrell, S. A.*et al.*
Molina, R., *see* Dunham, S. M. *et al.*
Molitoris, H. P., *see* Moore, D. *et al.*
Molnár, Z., *see* Emri, T. *et al.*
Money, N. P., *see* Davis, D. J. *et al.*
Money, N. P., *see* Moore, D. *et al.*
Money, N. P. Experimental methods . . . . . 1000
Moore, D., Meškauskas, A. A comprehensive comparative analysis of the occurrence of developmental sequences in fungal, plant and animal genomes . . . . . 251
Moore, D., Pöder, R., Molitoris, H. P., Money, N. P., Figlas, D., Lebel, T. *Mycological Research* News1*Mycological Research* News is compiled by David L. Hawksworth, Executive Editor *Mycological Research,* The Yellow House, Calle Aguila 12, Colonia La Maliciosa, Mataelpino, ES–28492 Madrid, Spain. (tel/fax: [+34] 91 857 3640; e–mail: myconova
Moore, D. Morphogenesis . . . . . 749
Moralejo, E., Puig, M., García, J. A., Descals, E. Stromata, sporangiomata and chlamydosori of *Phytophthora ramorum* on inoculated Mediterranean woody plants . . . . . 1323
Morin, L., *see* Gomez, D. R. *et al.*
Moriura, N., Matsuda, Y., Oichi, W., Nakashima, S., Hirai, T., Sameshima, T., Nonomura, T., Kakutani, K., Kusakari, S.-i., Higashi, K., Toyoda, H. Consecutive monitoring of lifelong production of conidia by individual conidiophores of *Blumeria graminis* f. sp. *hordei* on barley leaves by digital microscopic techniques with electrostatic micro-manipulation . . . . . 18
Morte, A., *see* Dreyer, B. *et al.*
Moulton, J. K., *see* Donahoo, R. *et al.*
Mswaka, A. Y., *see* Kashangura, C. *et al.*
Murat, C., *see* Wang, Y. *et al.*
Murphy, R. J., *see* Vesentini, D., *et al.*
Murray, G. M., *see* Tan, M.-K. *et al.*

Nakashima, S., *see* Moriura, N. *et al.*
Nell, M., Mammerler, R., Steinkellner, S. Oxygen consumption-based evaluation of fungal activity. . . . . 760
Newcombe, G., *see* Ganley, R. J. *et al.*
Nguyen, N. H., *see* Suh, S.-O. *et al.*
Nguyen, N. H., Suh, S.-O., Erbil, C. K., Blackwell, M. *Metschnikowia noctiluminum* sp. nov., *Metschnikowia corniflorae* sp. nov., and *Candida chrysomelidarum* sp. nov., isolated from green lacewings and beetles . . . . . 346
Nguyen, N. H., Suh, S.-O., Marshall, C. J., Blackwell, M. Morphological and ecological similarities: wood-boring beetles associated with novel xylose-fermenting yeasts, *Spathaspora passalidarum* gen. sp. nov. and *Candida jeffriesii* sp. nov. . . . . 1232
Nicholls, A. O., *see* Trappe, J. M. *et al.*
Niinomi, S., *see* Kiss, L. *et al.*
Niinomi, S., *see* Liberato, J. R. *et al.*
Niinomi, S., *see* Takamatsu, S. *et al.*
Nilsson, R. H., Larsson, K.-H., Larsson, E., Kõljalg, U. Fruiting body-guided molecular identification of root-tip mantle mycelia provides strong indications of ectomycorrhizal associations in two species of *Sistotrema* (*Basidiomycota*) . . . . . 1426
No, E.-G., *see* Perumal, R. *et al.*
Nonomura, T., *see* Moriura, N. *et al.*

O'Brien, P., *see* Anderson, N. *et al.*
O'Dell, T. E., *see* Dunham, S. M. *et al.*
Oberwinkler, F., *see* Suárez, J. P. H. *et al.*
Oberwinkler, F., *see* Thines, M. *et al.*
Oberwinkler, F., *see* Wubet, T. *et al.*
Oichi, W., *see* Moriura, N. *et al.*
Olson, Å. Genetic linkage between growth rate and the intersterility genes S and P in the basidiomycete *Heterobasidion annosum s.lat.* . . . . . 979

Palice, Z., *see* del Prado, R. *et al.*
Palm, M. E., *see* Farr, D. F. *et al.*
Pareek, M., Allaway, W. G., Ashford, A. E. *Armillaria luteobubalina* mycelium develops air pores that conduct oxygen to rhizomorph clusters . . . . . 38
Park, Y., Chen, X., Punja, Z. K. Diversity, complexity and transmission of double-stranded RNA elements in *Chalara elegans* (synanam. *Thielaviopsis basicola*) . . . . . 697
Paterson, R. R. M. Fungi and fungal toxins as weapons . . . . . 1003
Paul Angers, *see* Karine Pedneault, *et al.*
Paulus, B. C., Kanowski, J., Gadek, P. A., Hyde, K. D. Diversity and distribution of saprobic microfungi in leaf litter of an Australian tropical rainforest. . . . . 1441
Pawlik-Skowrońska, B., *see* Bačkor, M. *et al.*
Pazoutova, S., *see* Mantle, P. G. *et al.*
Pažoutová, S., *see* Tooley, P. W. *et al.*
Pei, M. H., *see* Bayon, C, *et al.*
Peirano, A., *see* Gordillo, F. *et al.*
Pennycook, S. R., *see* Gomez, D. R. *et al.*
Pereira, G. A. G., *see* Rincones, J. *et al.*
Pereira, J. F., *see* Rincones, J. *et al.*
Pérez-Gilabert, M., *see* Dreyer, B. *et al.*
Perneel, M. M., Tambong, J. T., Adiobo, A., Floren, C., Saborío, F., Lévesque, A., Höfte, M. Intraspecific variability of *Pythium myriotylum* isolated from cocoyam and other host crops. . . . . 583
Perumal, R., Isakeit,T., Menz, M., Katile, S., No, E.-G., Magill, C. W. Characterization and genetic distance analysis of isolates of *Peronosclerospora sorghi* using AFLP fingerprinting 471
Petersen, J. C., *see* Gordon, T. R. *et al.*
Picco, A. M., *see* Forlani, G. *et al.*
Pinard, M. A., *see* Woods, C. M. *et al.*
Pines, P. A., *see* Temple, B. *et al.*
Pócsi, I., *see* Emri, T. *et al.*
Pöder, R., *see* Moore, D. *et al.*
Pomela, A., *see* Rincones, J. *et al.*
Powell, M. J., *see* Letcher, P. M. *et al.*
Pryor, B. M., *see* Hong, S. G. *et al.*
Puig, M., *see* Moralejo, E. *et al.*
Punja, Z. K., *see* Park, Y. *et al.*
Purvis, O. W., *see* Crewe, *et al.*
Pusztahelyi, T., *see* Emri, T. *et al.*

Quang, D. N., *see* Stadler, M. *et al.*
Queiroz, M. V., *see* Rincones, J. *et al.*

Rainer, J., Sybren de Hoog, G. Molecular taxonomy and ecology of *Pseudallescheria*, *Petriella* and *Scedosporium prolificans* (*Microascaceae*) containing opportunistic agents on humans. . . . . 151
Rassing, B. R., *see* Mantle, P. G. *et al.*
Ravanal, M. C., *see* Gordillo, F. *et al.*
Ravishankar, J. P., *see* Davis, D. J. *et al.*

Réblová, M., Seifert, K. A., White, G. P. *Chaetosphaeria tortuosa*, the newly discovered teleomorph of *Menispora tortuosa*, with a key to known *Menispora* species . . . . . 104
Redfern, D. B., *see* Woods, C. M. *et al.*
Renker, C., *see* Błaszkowski, *et al.*
Renker, C., *see* Boyle, H. *et al.*
Ribeiro, J. Z., *see* Dalzoto, P. R. *et al.*
Riethmüller, A., *see* Voglmayr, H. *et al.*
Rigling, D., *see* Bendel, M, *et al.*
Rincones, J., Mazotti, G. D., Griffith, G. W., Pomela A., Figueira, A., Leal G. A., Queiroz, M. V., Pereira, J. F., Azevedo, R. A., Pereira, G. A. G., Meinhardt, L. W. Genetic variability and chromosome-length polymorphisms of the witches' broom pathogen *Crinipellis perniciosa* from various plant hosts in South America . . . . . 821
Ritchie, F., McQuilken, M. P., Bain, R. A. Effects of water potential on mycelial growth, sclerotial production, and germination of *Rhizoctonia solani* from potato. . . . . 725
Ritz, K. Decomposition . . . . . 122
Rizzo, D. M., *see* Smith, M. E. *et al.*
Robin, C., *see* Breuillin, F. *et al.*
Rocha, L. F. N., *see* Lazzarini, G. M. J. *et al.*
Rodas, C. A., *see* Gryzenhout, M. A. R. I. E. K. A. *et al.*
Romagnoli, C., *see* Mares, D. *et al.*
Rossman, A. Y., *see* Farr, D. F. *et al.*
Rossman, A. Y. *Mycological Research* News is compiled by David, L. Hawksworth, Executive Editor *Mycological Research*, The Yellow House, Calle Aguila 12, Colonia La Maliciosa, Mataelpino, Madrid 28492, Spain. (tel/fax: [+34] 91 857 3640; e-mail: myconova
Roux, J., *see* Geldenhuis, M. M. *et al.*
Ruiz, C., *see* Bayon, C, *et al.*
Russell, J. Tweddell , *see* Karine Pedneault, *et al.*

S. Jeppesen, T., *see* G. Frøslev, T., *et al.*
Saborío, F., *see* Perneel, M. *et al.*
Sameshima, T., *see* Moriura, N. *et al.*
Sampaio, J. P., *see* Golubev, W. I. *et al.*
Samuels, G. J., Suarez, C., Solis, K., Holmes, K. A., Thomas, S. E., Ismaiel, A., Evans, H. C. *Trichoderma theobromicola* and *T. paucisporum*: two new species isolated from cacao in South America . . . . . 381
Sanità di Toppi, L., *see* Bačkor, M. *et al.*
Santos, D. A., *see* Barros, M. E. S, *et al.*
Sarrocco, S., Mikkelsen, L., Vergara, M., Jensen, D. F., Lübeck, M., Vannacci, G. Histopathological studies of sclerotia of phytopathogenic fungi parasitized by a GFP transformed *Trichoderma virens* antagonistic strain. . . . . 179
Scheffer, J., Tudzynski, P. *In vitro* pathogenicity assay for the ergot fungus *Claviceps purpurea*. . . . . 465
Scherwinski, K., *see* Grosch, R. *et al.*
Schmid, J., *see* Zhang, N. *et al.*
Schmitt, I., *see* del Prado, R. *et al.*
Schoch, C. L., Kohlmeyer, J., Volkmann-Kohlmeyer, B., Tsui, C. K. M., Spatafora, J. W. The halotolerant fungus *Glomerobolus gelineus* is a member of the *Ostropales* . . . . . 257
Schoen, C., *see* Anderson, N. *et al.*
Schroers, H.-J., *see* Crous, P. W. *et al.*
Schubert, K., *see* Crous, P. W. *et al.*
Schurko, A. M., *see* Bedard, J. E. J, *et al.*
Scott, D. B., *see* Zhang, N. *et al.*
Scott, E. S., *see* Gomez, D. R. *et al.*
Scott, E. S., *see* Stummer, B. E. *et al.*
Scott, J. B., Chakraborty, S. Multilocus sequence analysis of *Fusarium pseudograminearum* reveals a single phylogenetic species . . . . . 1413
Scott, V., *see* Zhang, N. *et al.*
Sedarati, M. R., *see* Ferreira Gregorio, A. P. *et al.*
Seifert, K. A., *see* Réblová, M. *et al.*
Serra, R., Lourenço, A., Alipio, P., Venâncio, A. Influence of the region of origin on the mycobiota of grapes with emphasis on *Aspergillus* and *Penicillium* species . . . . . 971
Seviour, R. J., *see* Martin, K. L. *et al.*
Shamoun, S. F., *see* Zhao, S. *et al.*
Shao, J., *see* Malkus, A. *et al.*
Shearer, C., *see* Campbell, J. *et al.*
Shenoy, B. D., Jeewon, R., Wu, W. P., Bhat, D. J., Hyde, K. D. Ribosomal and RPB2 DNA sequence analyses suggest that *Sporidesmium* and morphologically similar genera are polyphyletic . . . . . 916
Simonini, G., *see* Taylor, A. F. S. *et al.*
Slippers, B., *see* Mohali, S. *et al.*
Slokoska, L. S., *see* Gocheva, *et al.*
Smith, L. J., *see* Forsyth, L. M. *et al.*
Smith, M. E., Trappe, J. M., Rizzo, D. M., Miller, S. L. *Gymnomyces xerophilus* sp. nov. (sequestrate Russulaceae), an ectomycorrhizal associate of *Quercus* in California . . . . . 575
Snook, L. A., *see* Ma, H. *et al.*
Solis, K., *see* Samuels, G. J. *et al.*
Spatafora, J. W., *see* Schoch, C. L. *et al.*
Speroni, E., *see* Bernicchia, A, *et al.*
Spiering, M. J., *see* Zhang, N. *et al.*
Spring, O., *see* Thines, M. *et al.*
Spring, O., Zipper, R. Evidence for asexual genetic recombination in sunflower downy mildew, *Plasmopara halstedii*. . . . . 657
Stadler, M., Quang, D. N., Tomita, A., Hashimoto, T., Asakawa, Y. Changes in secondary metabolism during stromatal ontogeny of *Hypoxylon fragiforme* . . . . . 811
Staiger, B., Kalb, K., Grube, M. Phylogeny and phenotypic variation in the lichen family *Graphidaceae* (*Ostropomycetidae*, *Ascomycota*). . . . . 765
Stchigel, A. M., *see* García, D. *et al.*
Stchigel, A. M., Cano, J., Miller, A. N., Calduch, M., Guarro, J. *Corylomyces*: a new genus of *Sordariales* from plant debris in France. . . . . 1361
Steinkellner, S., *see* Nell, M., *et al.*
Stummer, B. E., Zanker, T., Harvey, P. R., Scott, E. S. Detection and quantification of *Erysiphe necator* DNA in wine grapes and resultant must and juice . . . . . 1184
Suarez, C., *see* Samuels, G. J. *et al.*
Suárez, J. P. H. J. P., Weisz, M., Abele, A., Garnica, S., Oberwinkler, F., Kottke, I. Diverse tulasnelloid fungi form mycorrhizas with epiphytic orchids in an Andean cloud forest . . . . . 1257
Suh, S.-O., *see* Nguyen, N. H. *et al.*
Suh, S.-O., Blackwell, M. Three new asexual arthroconidial yeasts, *Geotrichum carabidarum* sp. nov., *Geotrichum histeridarum* sp. nov., and *Geotrichum cucujoidarum* sp. nov., isolated from the gut of insects . . . . . 220
Suh, S.-O., Nguyen, N. H., Blackwell, M. A yeast clade near *Candida kruisii* uncovered: nine novel *Candida* species associated with basidioma-feeding beetles . . . . . 1379
Suvi, T., *see* Tedersoo, L. *et al.*
Sybren de Hoog, G., *see* Rainer, J. *et al.*
Szemes, M., *see* Anderson, N. *et al.*

Tabor, M., *see* Goriely, A. *et al.*
Takamatsu, S., *see* Kiss, L. *et al.*
Takamatsu, S., *see* Liberato, J. R. *et al.*
Takamatsu, S., Matsuda, S., Niinomi, S., Havrylenko, M. Molecular phylogeny supports a Northern Hemisphere origin of *Golovinomyces* (*Ascomycota*: *Erysiphales*) . . . . . 1093
Tal, O., *see* Unterseher, M. *et al.*
Tambong, J. T., *see* Perneel, M. *et al.*
Tan, M.-K., Murray, G. M. A molecular protocol using quenched FRET probes for the quarantine surveillance of *Tilletia indica*, the causal agent of Karnal bunt of wheat . . . . . 203
Tan, Y. Y., *see* Zhang, N. *et al.*
Tan, Z. M., *see* Wang, Y. *et al.*

Taylor, A. F. S., Hills, A. E., Simonini, G., Both, E. E., Eberhardt, U. Detection of species within the *Xerocomus subtomentosus* complex in Europe using rDNA–ITS sequences . . . . . 276
Taylor, J. E., *see* Masunga, G. S. *et al.*
Taylor, T. N., Krings, M., Kerp, H. *Hassiella monospora* gen. et sp. nov., a microfungus from the 400 million year old Rhynie chert . . 628
Tedersoo, L., Suvi, T., Larsson, E., Kõljalg, U. Diversity and community structure of ectomycorrhizal fungi in a wooded meadow . . 734
Teketay, D., *see* Wubet, T. *et al.*
Temple, B., Pines, P. A., Hintz, W. E. A nine-year genetic survey of the causal agent of Dutch elm disease, *Ophiostoma novo-ulmi* in Winnipeg, Canada . . . . . 594
Thines, M., Göker, M., Spring, O., Oberwinkler, F. A revision of *Bremia graminicola* . . . . . 646
Thomas, S. E., *see* Samuels, G. J. *et al.*
Thomas, S. L., *see* Donahoo, R. *et al.*
Thomsen, L., *see* Jensen, A. B. *et al.*
Tian, C., *see* Ma, H. *et al.*
Tomita, A., *see* Stadler, M. *et al.*
Tomko, J., *see* Bačkor, M. *et al.*
Tooley, P. W., Bandyopadhyay, R., Carras, M. M., Pažoutová, S. Analysis of *Claviceps africana* and *C. sorghi* from India using AFLPs, EF-1α gene intron 4, and β-tubulin gene intron 3 . . 441
Tordoff, G. M., *see* Wood, J. *et al.*
Tordoff, G. M., Boddy, L., Jones, T. H. Grazing by *Folsomia candida* (Collembola) differentially affects mycelial morphology of the cord-forming basidiomycetes *Hypholoma fasciculare*, *Phanerochaete velutina* and *Resinicium bicolor* . . . . . 335
Toyoda, H., *see* Moriura, *et al.*
Trappe, J. M., *see* Smith, M. E. *et al.*
Trappe, J. M., Nicholls, A. O., Claridge, A. W., Cork, S. J. Prescribed burning in a *Eucalyptus* woodland suppresses fruiting of hypogeous fungi, an important food source for mammals . . 1333
Tsui, C. K. M., *see* Schoch, C. L. *et al.*
Tuckwell, D., Lavens, S. E., Birch, M. Two families of extracellular phospholipase C genes are present in aspergilli . . . . . 1140
Tudzynski, P., *see* Scheffer, J. *et al.*

Ueng, P. P., *see* Malkus, A. *et al.*
Unkles, S. E., *see* Martin, K. L. *et al.*
Unterseher, M., Tal, O. Influence of small scale conditions on the diversity of wood decay fungi in a temperate, mixed deciduous forest canopy . . . . . 169

Van Beeumen, J., *see* Gordillo, F. *et al.*
Van Den Berg, N., *see* Groenewald, S. *et al.*
Van Wyk, M., *see* Al-Subhi A. M., *et al.*
Vandenberghe, I., *see* Gordillo, F. *et al.*
Vannacci, G., *see* Sarrocco, S. *et al.*
Vassilev, S. V., *see* Gocheva, *et al.*
Vázquez, C., *see* López-Errasquín, E. *et al.*
Venâncio, A., *see* Serra, R. *et al.*
Verdin, A., Lounès-Hadj Sahraoui, A., Laruelle, F., Grandmougin-Ferjani, A., Durand R. Effect of the high polycyclic aromatic hydrocarbon, benzo[a]pyrene, on the lipid content of *Fusarium solani* . . . . . 479
Veres, T., *see* Emri, T. *et al.*
Vergara, M., *see* Sarrocco, S. *et al.*
Vesentini, D., Dickinson, D. J., Murphy, R. J. Fungicides affect the production of extracellular mucilaginous material (ECMM) and the peripheral growth unit (PGU) in two wood-rotting basidiomycetes . . . . . 1207
Vicentini, C. B., *see* Mares, D. *et al.*
Viljoen, A., *see* Groenewald, S. *et al.*
Virag, A., Harris, S. D. The Spitzenkörper: a molecular perspective . . 4
Voglmayr, H., Fatehi, J., Constantinescu, O. Revision of *Plasmopara* (*Chromista*, *Peronosporales*) parasitic on *Geraniaceae* . . 633
Voglmayr, H., Riethmüller, A. Phylogenetic relationships of *Albugo* species (white blister rusts) based on LSU rDNA sequence and oospore data . . . . . 75
Voglmayr, H., Yule, C. M. *Polyancora globosa* gen. sp. nov., an aeroaquatic fungus from Malaysian peat swamp forests . . . . . 1242
Volkmann-Kohlmeyer, B., *see* Schoch, C. L. *et al.*

Wang, Y., Tan, Z. M., Zhang, D. C., Murat, C., Jeandroz, S., Le Tacon F. Phylogenetic and populational study of the *Tuber indicum* complex . . . . . 1034
Wang, Z., *see* Blanco-Dios, J. B, *et al.*
Ward, E., *see* Kwaśna, H. *et al.*
Wedin, M., *see* Crewe, *et al.*
Wedin, M., *see* Kruys, Å. *et al.*
Wedin, M., Döring, H., Gilenstam, G. *Stictis* s. lat. (*Ostropales*, *Ascomycota*) in northern Scandinavia, with a key and notes on morphological variation in relation to lifestyle. . . . . 773
Weiß, M., *see* Wubet, T. *et al.*
Weis, M., *see* Suárez, J. P. H. *et al.*
White, G. P., *see* Réblová, M. *et al.*
White, M. M., Lichtwardt, R. W., Colbo, M. H. Confirmation and identification of parasitic stages of obligate endobionts (*Harpellales*) in blackflies (*Simuliidae*) by means of rRNA sequence data . . . . . 1070
White, M. M. Evolutionary implications of a rRNA-based phylogeny of *Harpellales* . . . . . 1011
Williams, L. E., *see* Fotopoulos, V. *et al.*
Winder, R. S. Cultural studies of *Morchella elata* . . . . . 612
Wingfield, B. D., *see* Cortinas, M.-N. *et al.*
Wingfield, B. D., *see* Geldenhuis M. M. *et al.*
Wingfield, B. D., *see* Gryzenhout, M. A. R. I. E. K. A. *et al.*
Wingfield, M. J., *see* Al-Subhi A. M., *et al.*
Wingfield, M. J., *see* Cortinas, M.-N. *et al.*
Wingfield, M. J., *see* Geldenhuis M. M. *et al.*
Wingfield, M. J., *see* Gryzenhout, M. A. R. I. E. K. A. *et al.*
Wingfield, M. J., *see* Mohali, S. *et al.*
Wood, J., Tordoff, G. M., Jones, T. H., Boddy, L. Reorganization of mycelial networks of *Phanerochaete velutina* in response to new woody resources and collembola (*Folsomia candida*) grazing . . . . . 985
Woods, C. M., Woodward, S., Pinard, M. A., Redfern, D. B. Colonization of Sitka spruce stumps by decay-causing hymenomycetes in paired inoculations . . . . . 854
Woodward, S., *see* Woods, C. M. *et al.*
Wu, W. P., *see* Shenoy, B. D. *et al.*
Wubet, T., Weiß, M., Kottke, I., Teketay, D., Oberwinkler, F. Phylogenetic analysis of nuclear small subunit rDNA sequences suggests that the endangered African Pencil Cedar, *Juniperus procera*, is associated with distinct members of *Glomeraceae* . . . . . 1059

Xu, D., *see* Cortinas, M.-N. *et al.*

Yuan, Z.-W., *see* Bayon, C, *et al.*
Yule, C. M., *see* Voglmayr, H. *et al.*

Zambonelli, A., *see* Iotti M. *et al.*
Zanker, T., *see* Stummer, B. E. *et al.*
Zhang, D. C., *see* Wang, Y. *et al.*
Zhang, K.-Q., *see* Li Y. *et al.*
Zhang, N., Scott, V., Al-Samarrai, T. H., Tan, Y. Y., Spiering, M. J., McMillan, L. K., Lane, G. A., Scott, D. B., Christensen, M. J., Schmid, J. Transformation of the ryegrass endophyte *Neotyphodium lolii* can alter its *in planta* mycelial morphology . . . . . 601
Zhao, S., Shamoun, S. F. The effects of culture media, solid substrates, and relative humidity on growth, sporulation and conidial discharge of *Valdensinia heterodoxa* . . . . . 1340
Zimdars, B., *see* Boyle, H. *et al.*
Zipper, R., *see* Spring, O. *et al.*
Zuzga, S. M., *see* Malkus, A. *et al.*